

AMENDMENTS TO THE CLAIMS

Please replace all prior versions, and listings, of claims in the application with the following list of claims, in which insertions are indicated by underlining and deletions are indicated by strikeouts or double bracketing.

1. (Currently Amended) A method of treating stimulating an immune response in a human subject having an HCV infection that was not successfully treated using a previous non-CpG therapy comprising

administering to a subject in need thereof of such treatment a CpG immunostimulatory nucleic acid comprising a sequence of:

5' X₁ X₂ CG X₃ X₄ 3'

wherein C is unmethylated, wherein X₁, X₂, X₃, and X₄ are nucleotides, and wherein the nucleic acid is 8 to 100 nucleotides long, in an amount effective to ~~treat the infection~~ stimulate an immune response.

2. (Original) The method of claim 1, wherein the non-CpG therapy includes interferon-alpha.

3. (Original) The method of claim 2, wherein the interferon-alpha is interferon-alpha-2b, interferon-alpha-2a or consensus interferon-alpha.

4. (Original) The method of claim 2, wherein the non-CpG therapy includes interferon-alpha and Ribavirin.

5. (Original) The method of claim 2, wherein the non-CpG therapy includes pegylated interferon-alpha and Ribavirin.

6. (Withdrawn) The method of claim 1, wherein the CpG immunostimulatory nucleic acid is an A class CpG immunostimulatory nucleic acid.

7. (Withdrawn) The method of claim 1, wherein the CpG immunostimulatory nucleic acid is a B class CpG immunostimulatory nucleic acid

8. (Original) The method of claim 1, wherein the CpG immunostimulatory nucleic acid is a C class CpG immunostimulatory nucleic acid.

9. (Original) The method of claim 1, further comprising the step of administering interferon-alpha to the subject.

10. (Original) The method of claim 9, wherein the interferon-alpha is interferon-alpha-2b, interferon-alpha-2a or consensus interferon alpha.

11. (Original) The method of claim 9, wherein the interferon-alpha is administered substantially simultaneously with the CpG immunostimulatory nucleic acid.

12. (Original) The method of claim 1, wherein the CpG immunostimulatory nucleic acid comprises a backbone modification.

13. (Original) The method of claim 12, wherein the backbone modification is a phosphorothioate backbone modification.

14. (Original) The method of claim 1, wherein the CpG immunostimulatory nucleic acid comprises a semi-soft backbone.

15. (Currently Amended) A method of treating stimulating an immune response in a human subject having an HCV infection and likely to be non-responsive to a non-CpG therapy comprising

administering to a subject in need thereof of such treatment a CpG immunostimulatory nucleic acid comprising a sequence of:

5' X₁ X₂CG X₃ X₄ 3'

wherein C is unmethylated, wherein X₁, X₂, X₃, and X₄ are nucleotides, and wherein the nucleic acid is 8 to 100 nucleotides long, in an amount effective to treat the infection stimulate an immune response.

16. (Original) The method of claim 15, further comprising identifying a subject likely to be non-responsive to a non-CpG therapy.

17. (Original) The method of claim 16, wherein the subject is identified as likely to be non-responsive based on an assay of interferon-alpha produced per dendritic cell.

18-63. (Canceled)

64. (Currently Amended) A method of treating controlling viral replication and viral spread in a human subject having an HCV infection that was not successfully treated using a previous non-CpG therapy comprising

administering to a subject in need thereof an antiviral agent and a class CpG immunostimulatory nucleic acid[[,]] comprising a sequence of:

5' X₁ X₂CG X₃ X₄ 3'

wherein C is unmethylated, wherein X₁, X₂, X₃, and X₄ are nucleotides, and wherein the nucleic acid is 8 to 100 nucleotides long, having a semi-soft backbone in an amount effective to treat the infection control viral replication and viral spread of HCV.

65. (Currently Amended) A method of treating controlling viral replication and viral spread in a human subject having an HCV infection and likely to be non-responsive to a that was not successfully treated using a previous non-CpG therapy comprising

administering to a subject in need of such treatment thereof an antiviral agent and a class CpG immunostimulatory nucleic acid having a semi-soft backbone and comprising a sequence of 5' X₁ X₂CG X₃ X₄ 3'

wherein C is unmethylated, wherein X₁, X₂, X₃ and X₄ are nucleotides, and wherein the nucleic acid is 8 to 100 nucleotides in length, in an amount effective to treat the infection control viral replication and viral spread of HCV.

66. (Cancelled)

67. (Withdrawn) A method of treating a subject having an HCV infection that was not successfully treated using a previous non-CpG therapy comprising

contacting peripheral blood mononuclear cells from a subject in need of such treatment, with a CpG immunostimulatory nucleic acid in an amount effective to stimulate an immune response, and

re-infusing the cells into the subject.

68-71. (Cancelled)

72. (New) The method of claim 8, wherein the CpG immunostimulatory nucleic acid comprises a semi-soft backbone.

73. (New) The method of claim 64, wherein the antiviral agent is interferon-alpha.

74. (New) The method of claim 64, wherein the antiviral agent is ribavirin.

75. (New) The method of claim 64, wherein the antiviral agent is administered substantially simultaneously with the CpG immunostimulatory nucleic acid.